Double cassete tape recorder dual preamplifier

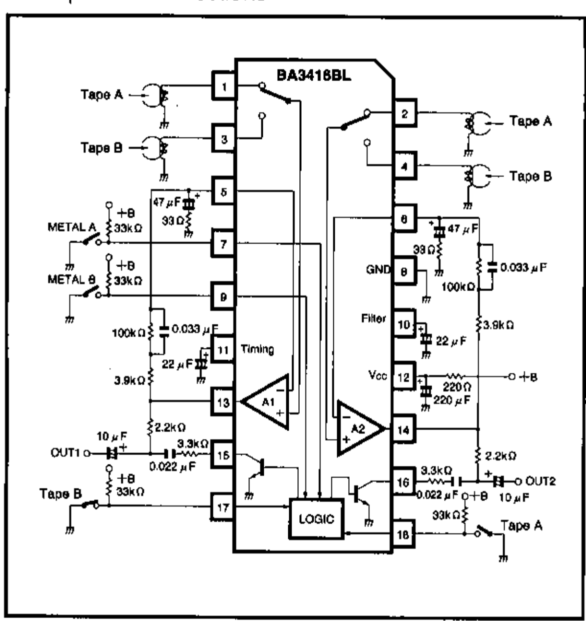
BA3416BL

The BA3416BL is dual preamplifier (for playback only) that has been designed for use with dual-cassette decks. An internal switch is used to switch the left and right channel inputs between the A and B tape mechanisms.
The playback heads can be directly coupled to the preamplifiers without coupling capacitors, and an internal switch is provided to switch the equalizer characteristics for metal and chrome tape.

●Applications
Dual-deck stereo radio cassette players

●Features
1) Internal tape A/tape B switch for use with dual-cassette decks.
2) Internal switch is provided to switch the equalizer characteristics for metal tape playback.
3) Input bias circuit does not require coupling capacitors.
4) Wide operating supply voltage range (Vcc = 3.5V to 12V).

●Block diagram and external component connections



●Absolute maximum ratings (Ta = 25℃)

Parameter	Symbol	Limits	Unit
Supply voltage	V_{CC}	14	V
Power dissipation	Pd	400*	mW
Operating temperature	Topr	−25~75	℃
Storage temperature	Tstg	−55~125	℃

* Reduced by 4.0mW for each increase in Ta of 1°C over 25°C.

●Recommended operating conditions (Ta = 25℃)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Supply voltage	V_{CC}	3.5	8	12	V

●Electrical characteristics (unless otherwise specified Ta = 25℃, V_{CC} = 8V, f = 1kHz, OUTPUT = pins 13 and 14)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Quiescent current	I_Q	1.0	2.5	4.0	mA	V_{IN}=0V_{rms}
Open-circuit voltage gain	G_{VO}	70	84	−	dB	R_L=10kΩ、V_O=0dBV
Maximum output voltage	V_{OM}	1.0	1.8	−	V_{rms}	THD=1%、R_L=10kΩ
Input conversion-noise voltage	V_{NIN}	−	1.1	2.0	μV_{rms}	R_g=2.2kΩ、NAB45dB BPF (20Hz~20kHz)
Input resistance	R_{IN}	−	130	−	kΩ	−
Channel separation	CS	55	65	−	dB	V_O=1V_{rms}
ChA/ChB crosstalk	CT_{AB}	60	70	−	dB	V_O=1V_{rms}
Total harmonic distortion	THD	−	0.08	0.2	%	V_O=0.5V_{rms}

●Tape selection

17pin	18pin	Operating
L	L	TapeB
L	H	TapeA
H	L	TapeB
H	H	Unstable (first pin to go "H" has priority)

● External dimensions (Unit: mm)

